

REMARKS

Claim 1 is amended with support found in the specification at page 11, lines 7 to 12 and also in originally filed claim 12, which has now been canceled. Claim 15 is amended to incorporate the subject matter of originally filed claim 14, now canceled.

REJECTION UNDER 35 USC §103(A)

The examiner maintains rejection of the present claims as obvious over the disclosure of Valcke et al. (US 5,714,507). Applicants again respectfully traverse this rejection, and state that *prima facie* obviousness has not been established by the examiner for the present claims. To establish *prima facie* obviousness, the examiner must show in the prior art a teaching or suggestion of each claim element, some suggestion or motivation to make the claimed invention, and a reasonable expectation for success in doing so (see, e.g., *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986); *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

The present claims are drawn to an invention having the following elements: it is an emulsifiable concentrate; and it contains at least one azole derivative, an alkoxylate of an aliphatic alcohol, an anionic dispersant, and a polar aprotic organic solvent, each in a specified amount. Valcke neither teaches nor suggests a composition which is an emulsifiable concentrate possessing each and every single component as claimed.

Valcke discloses that "compositions comprising particular ratios of metconazole and another fungicidal triazole exhibit synergistic fungicidal activity" (col.1:18-20). These synergistic mixtures are administered to "the aboveground parts of plants, ... to the soil ... with a liquid composition ... [or] in a solid formulation," or are "coated on seeds" or used "as wood-preserving agents" (col.4:1-17).

In administering these synergistic mixtures, Valcke contemplates that "the active ingredients ... are [either] used in unmodified form or [are mixed] together with adjuvants *conventionally employed in the art of formulation*" (col.5:56-58). Where the active ingredients are mixed with adjuvants, these formulations,

i.e., the compositions, preparations or mixtures containing the active ingredients and, where appropriate, a solid or liquid adjuvant, *are prepared following art-known procedures*. (col.5:58-61)

Among these art-known procedures are "mixing and/or grinding the active ingredients with extenders, e.g. solvents, solid carriers and, where appropriate, surface-active compounds (surfactants)" or making

emulsifiable concentrates, directly sprayable or dilutable solutions, dilute emulsions, wettable powders, soluble powders, dusts, granulates, and encapsulations in ... polymer substances. (col.5:62-col.6:1)

Valcke then states that the various formulations will require appropriate carriers and adjuvants based on the intended objectives for their use, and that

in general different compositions with different characteristics will be required for use in plant protection on the one hand, and for use in material protection on the other. (col.6:1-8)

The carriers and adjuvants "equally useful in both types of compositions" are described

in the paragraphs immediately following this statement (col.6:9-10; col.6:11-col.7:53).

Those which "in particular relate to compositions for use in plant protection" follow thereafter, with those which "in particular relate to compositions for use in wood protection" being discussed finally (col.7:54-55; col.7:60-col.8:47; col.7:48-49; col.7:53-col.11:4).

Given that the cited reference discloses that emulsifiable concentrates are to be "*prepared following art-known procedures*," it naturally follows that this reference *cannot* be cited for any advances in this technical area (col.5:61). The carriers and adjuvants disclosed by Valcke are either *generally* suitable for all contemplated compositions, or are particularly suitable either for plant protection compositions *generally* or for material protection compositions *generally*. Guidelines for producing any given composition, including selection of the particular components, are accomplished "*following art-known procedures*" (col.5:61). To demonstrate that one of skill in the art would pick and choose among the long lists of *generally* suitable carriers and adjuvants given in Valcke and be motivated to produce an emulsifiable concentrate similar or identical to that of the present invention, the examiner would *of necessity* be compelled to show from the specific examples of *emulsifiable concentrates* in Valcke, or from *another source*, that such a combination is in keeping with "*art-known procedures*" (col.5:61). Since Valcke is the only reference cited to demonstrate that one of skill in the art would produce an emulsifiable concentrate similar to that of the present claims, the examiner can *only* rely on the specific examples of such compositions recited therein.

The compositions of example 2 are emulsifiable concentrates containing two active ingredients, surfactants and solvent. None of the exemplified emulsifiable concentrates contains *all* of the necessary components to suggest the presently claimed invention. In particular, none employs an alkoxylate of an aliphatic alcohol. Rather, all surfactants employed in the emulsifiable concentrates, i.e., octylphenol polyethylene glycol ether, castor oil polyglycol ether, and tributylphenol polyethylene glycol ether, are each "polyglycol ether derivatives of aliphatic or cycloaliphatic alcohols" (col.7:15-16).

The examiner's assertion that Valcke discloses using alkoxylated alcohols in emulsifiable concentrates has no basis in fact in the cited reference. The recitation of polyethylene oxide/polypropylene glycol adducts and nonylphenol polyethoxy-ethanols is quite general, and may apply to any of the various compositions contemplated by Valcke. The only positive recitation of emulsifiable concentrates envisioned by Valcke excludes these elements, and the examiner has given no statement as to why one of skill in the art would be motivated to replace the surfactants actually employed with other, less preferred, surfactants (compare, e.g., col.7:15-16 ("[n]on-ionic surfactants are *preferably* polyglycol ether derivatives," emphasis supplied) with col.7:21-23, ("[f]urther *suitable* [though not *preferred*] non-ionic surfactants are the ... adducts of polyethylene oxide with polypropylene glycol," emphasis supplied)).

The presently amended claims further specify polar aprotic solvents which are not employed by Valcke in the exemplified emulsifiable concentrates. Applicants

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respectfully assert that the further amendment of these claims to specify these solvents is not necessary for purposes of overcoming this prior art. The above differences are sufficiently at variance to require a stronger showing of *prima facie* obviousness on the examiner's part. Applicants request that the rejection of the present claims as obvious over Valcke et al. be withdrawn.

In view of the foregoing remarks, applicants consider that the rejections of record have been obviated and respectfully solicit passage of the application to issue.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Please amend claims 1 and 15 to read as follows:

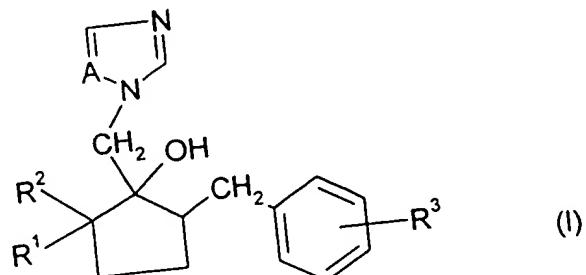
1. (amended) A non-aqueous, emulsifiable concentrate (EC) formulation for fungicidal crop protection active compounds which comprises
  - (a1) 50 to 300 g/L of at least one azole derivative having a free hydroxy group or a salt or an adduct thereof;
  - (a2) optionally 50 to 500 g/L of at least one additional fungicidally active compound;
  - (b) 100 to 700 g/L of one or more alkoxylates of an aliphatic alcohol, ✓
  - (c) up to 100 g/L of one or more non-ionic dispersants,
  - (d) 10 to 100 g/L of one or more anionic dispersants,
  - (e) 50 to 600 g/L of one or more polar aprotic organic solvents selected from the group consisting of N-alkylpyrrolidones, N-cycloalkylpyrrolidones, N-hydroxyalkyl-pyrrolidones and lactones, [and]
  - (f) up to 500 g/L of one or more non-polar organic solvents, and
  - (g) up to 5 g/L of one or more defoamers.
15. (amended) An EC according to claim [14] 1 wherein the defoamer (g) is selected from the group comprising perfluoroalkyl-phosphonic acids, perfluoroalkylphosphinic acids and mixtures thereof, and which additionally comprises a silicone-based defoamer.

**Please cancel claim 12.**

**COPY OF ALL CLAIMS**

1. (amended) A non-aqueous, emulsifiable concentrate (EC) formulation for fungicidal crop protection active compounds which comprises
  - (a1) 50 to 300 g/L of at least one azole derivative having a free hydroxy group or a salt or an adduct thereof;
  - (a2) optionally 50 to 500 g/L of at least one additional fungicidally active compound;
  - (b) 100 to 700 g/L of one or more alkoxylates of an aliphatic alcohol,
  - (c) up to 100 g/L of one or more non-ionic dispersants,
  - (d) 10 to 100 g/L of one or more anionic dispersants,
  - (e) 50 to 600 g/L of one or more polar aprotic organic solvents selected from the group consisting of N-alkylpyrrolidones, N-cycloalkylpyrrolidones, N-hydroxyalkyl-pyrrolidones and lactones,
  - (f) up to 500 g/L of one or more non-polar organic solvents, and
  - (g) up to 5 g/L of one or more defoamers.

2. A formulation according to claim 1 wherein component (a1) is a compound of formula I



in which

$R^1$  and  $R^2$  each independently represent hydrogen atom or an optionally substituted alkyl, alkenyl, alkynyl or alkadienyl group;

$R^3$  represents a halogen atom or an optionally substituted alkyl, alkenyl, alkynyl, alkadienyl, alkoxy or aryl group;

$A$  represents a nitrogen atom or a  $CH$  group; and

$n$  represents an integer from 0 to 2.

3. A formulation according to claim 1 wherein component (a1) is metconazole.
6. A formulation according to claim 1 wherein said alkoxylate of an aliphatic alcohol (b) is a  $C_{5-20}$  alcohol being alkoxylates with 1 to 20  $C_{2-6}$  alkoxy groups.
7. A formulation according to claim 5 wherein said the alkoxylate (b) is a straight-chained or branched  $C_{7-19}$  alcohol being ethoxylated with 4 to 18 ethoxy and/or propoxy groups, or a mixture thereof.
8. A formulation according to claim 1 wherein the ratio of the crop protection active compounds (1) to said alkoxylates of an aliphatic alcohol (b) is between 1:0.5 and 1:100.
11. A formulation according to claim 1 wherein the polar aprotic solvent (e) is immiscible with water.
15. (amended) An EC according to claim 1 wherein the defoamer (g) is selected from the group comprising perfluoroalkyl-phosphonic acids, perfluoroalkylphosphinic acids and mixtures thereof, and which additionally comprises a silicone-based

defoamer.

16. A method for combating a fungus at a locus which comprises emulsifying a formulation as claimed in claim 1 with water and treating said locus with the obtained diluted aqueous formulation.
17. A formulation according to claim 8 wherein the ratio of the crop protection active compounds (a) to said alkoxylates of an aliphatic alcohol (b) is between 1:1 and 1:10.